

February 14, 1958

MEMORANDUM FOR THE SECRETARY OF DEFENSE

SUBJECT: THOR and WS-117L Program

1. Closely related to Air Force THOR and WS-117L programs are five projects, all of which, I believe, should be undertaken promptly by the Air Force. THOR boosters can be made available for these projects from 1958 authorized production without adversely affecting the IRBM program.

2. The projects are as follows:

a. THOR ICBM - An existing project to test advance ICBM nose cones is based on using THOR and a VANGUARD second stage. This combination will also provide a two-stage missile carrying a 300 lb. warhead with a range of over 9,000 miles. This missile could be provided for inventory relatively cheaply and at a cost of about \$20 million more than the cost of a THOR squadron. No firm recommendation as to program on the THOR ICBM is made at this time, but it is believed operational missiles could be secured at a very early date to supplement ICBM capability, if desired.

b. Television Satellite. A small television transmitter can be installed in a satellite to provide global weather for military, commercial and scientific purposes. The THOR would be combined with the HUSTLER engine to boost the satellite to orbit. I am advised the first flight of this system can be made in September 1958.

c. Recoverable Satellite. This system could carry a variety of payloads all capable of recovery by decelerating devices. The THOR would be combined with a VANGUARD second stage to boost the satellite to orbit. Present indications are that the first flight can be made in July 1958.

d. Scientific Satellite. The use of THOR and the HUSTLER engine would enable the Air Force to launch a 300 lb. scientific satellite by October 1958.

e. Moon Impact. As previously recommended, the Air Force can launch a moon rocket using the THOR, VANGUARD 2 and VANGUARD 3 with an appropriate payload by October 1958. In addition to the scientific data that can be obtained from such a flight, the United States could make a major international psychological gain by beating the Russians to the Moon. I urge that this Air Force approach be utilized.

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3. Regarding Items 2d and e above, the Air Force can undertake their accomplishment or participate in such projects as may be deemed appropriate. I believe the dates used above should be regarded as targets and are necessarily subject to adjustment as programs proceed.

(Signed) JAMES H. DOUGLAS
Secretary of the Air Force

APPROVED (Within Air Force Resources for 1950):
